FIGURE 1A

<u>CHIR 12.12 light chain:</u>

leader:

MALPAQLLGLLMLWVSGSSG

variable:

DIVMTQSPLSLTVTPGEPASISCRSSQSLLYSNGYNYLDWYLQKPGQSPQVLISLGSNRASG
VPDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQARQTPFTFGPGTKVDIR

constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 1B

<u>CHIR-12.12 heavy chain:</u>

leader:

MEFGLSWVFLVAILRGVQC

variable:

QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYEESNRYHAD
SVKGRFTISRDNSKITLYLQMNSLRTEDTAVYYCARDGGIAAPGPDYWGQGTLVTVSS

constant:

ASTKGPSVFPLAPASKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPGK

alternative constant region:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPGK

FIGURE 2A

DNA sequence of light chain of CHIR-12.12:

5'atggcgctccctgctcagctcctggggctgctaatgctctgggtctctggatccagtggggatattgtgatgactcagtctccactctc
cctgaccgtcacccctggagagccggcctccatctcctgcaggtccagtcagagcctcctgtatagtaatggatacaactatttggattg
gtacctgcagaagccagggcagtctccacaggtcctgatctctttgggttctaatcgggcctccggggtccctgacaggttcagtggca
gtggatcaggcacagattttacactgaaaatcagcagagtggaggctgaggatgttggggtttattactgcatgcaagctcgacaaact
ccattcactttcggccctgggaccaaagtggatatcagacgaactgtggctgcaccatctgtcttcatcttcccgccatctgatgagcagt
tgaaatctggaactgcctctgttgtgtgcctgctgaataacttctatcccagagaggccaaagtacagtggaaggtggataacgccctcc
aatcgggtaactcccaggagagtgtcacagagcaggacagcaaggacagcacctacagcctcagcagcaccctgacgctgagcaa
agcagactacgagaaacacaaagtctacgcctgcgaagtcacccatcagggcctgagctcgcccgtcacaaagagcttcaacaggg
gagagtgttag3'

FIGURE 2B

DNA sequence of heavy chain of CHIR-12.12 (including introns):

5'atggagtttgggctgagctgggttttccttgttgctattttaagaggtgtccagtgtcaggtgcagttggtggagtctggggggaggcgt
ggtccagcctgggaggtccctgagactctcctgtgcagcctctggattcaccttcagtagctatggcatgcactgggtccgccaggctc
caggcaaggggctggagtgggtggcagttatatcatatgaggaaagtaatagataccatgcagactccgtgaagggccgattcacca
tctccagagacaattccaagatcacgctgtatctgcaaatgaacagcctcagaactgaggacacggctgtgtattactgtgcgagagat
ggggggtatagcagcacctgggcctgactactggggccagggaaccctggtcaccgtctcctcagcaagtaccaagggcccatccgt
cttccccctggcgcccgctagcaagagcacctctgggggcacagcggccctgggctgcctggtcaaggactacttccccgaaccgg
tgacggtgtcgtggaactcaggcgccctgaccagcggcgtgcacaccttcccggctgtcctacagtcctcaggactctactccctcag
cagcgtggtgaccgtgccctccagcagcttgggcacccagacctacatctgcaacgtgaatcacaagcccagcaacaccaaggtgg
acaagagagttggtgagaggccagcacagggagggagggtgtctgctggaagccaggctcagcgctcctgcctggacgcatcccg
gctatgcagtcccagtccagggcagcaaggcaggccccgtctgcctcttcacccggaggcctctgcccgcccccactcatgctcagg
gagagggtcttctggctttttccccaggctctgggcaggcacaggctaggtgcccctaacccaggccctgcacacaaaggggcaggt
gctgggctcagacctgccaagagccatatccgggaggaccctgcccctgacctaagcccaccccaaaggccaaactctccactccc
tcagctcggacaccttctctcctcccagattccagtaactcccaatcttctctctgcagagcccaaatcttgtgacaaaactcacacatgc
ccaccgtgcccaggtaagccagcccaggcctcgccctccagctcaaggcgggacaggtgccctagagtagcctgcatccagggac
aggccccagccgggtgctgacacgtccacctccatctcttcctcagcacctgaactcctggggggaccgtcagtcttcctcttccccc
aaaacccaaggacaccctcatgatctcccggacccctgaggtcacatgcgtggtggtggacgtgagccacgaagaccctgaggtca
agttcaactggtacgtggacggcgtggaggtgcataatgccaagacaaagccgcgggaggagcagtacaacagcacgtaccgtgt
ggtcagcgtcctcaccgtcctgcaccaggactggctgaatggcaaggagtacaagtgcaaggtctccaacaaagccctcccagccc
ccatcgagaaaaccatctccaaagccaaaggtgggacccgtggggtgcgagggccacatggacagaggccggctcggcccaccc
tctgccctgagagtgaccgctgtaccaacctctgtccctacagggcagccccgagaaccacaggtgtacaccctgcccccatcccgg
gaggagatgaccaagaaccaggtcagcctgacctgcctggtcaaaggcttctatcccagcgacatcgccgtggagtgggagagcaa
tgggcagccggagaacaactacaagaccacgcctcccgtgctggactccgacggctccttcttcctctatagcaagctcaccgtggac
aagagcaggtggcagcaggggaacgtcttctcatgctccgtgatgcatgaggctctgcacaaccactacacgcagaagagcctctcc
ctgtctccgggtaaatga3'

FIGURE 3A

CHIR-5.9 light chain:

leader:

MALLAQLLGLLMLWVPGSSG

variable:

AIVMTQPPLSSPVTLGQPASISCRSSQSLVHSDGNTYLNWLQQRPGQPPRLLIYKFFRRLSG
VPDRFSGSGAGTDFTLKISRVEAEDVGVYYCMQVTQFPHTFGQGTRLEIK

constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 3B

CHIR-5.9 heavy chain:

leader:

MGSTAILALLLAVLQGVCA

variable:

EVQLVQSGAEVKKPGESLKISCKGSGYSFTSYWIGWVRQMPGKGLEWMGIIYPGDSDTRYSP
SFQGQVTISADKSISTAYLQWSSLKASDTAMYYCARGTAAGRDYYYYYGMDVWGQGTTVTVS
S

constant:

ASTKGPSVFPLAPASKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPGK

alternative constant region:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDTLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPGK

FIGURE 4A

Coding sequence for short isoform of human CD40:

```
  1 atggttcgtc tgcctctgca gtgcgtcctc tggggctgct tgctgaccgc tgtccatcca
 61 gaaccaccca ctgcatgcag agaaaaacag tacctaataa acagtcagtg ctgttctttg
121 tgccagccag gacagaaact ggtgagtgac tgcacagagt tcactgaaac ggaatgcctt
181 ccttgcggtg aaagcgaatt cctagacacc tggaacagag agacacactg ccaccagcac
241 aaatactgcg accccaacct agggcttcgg gtccagcaga agggcacctc agaaacagac
301 accatctgca cctgtgaaga aggctggcac tgtacgagtg aggcctgtga gagctgtgtc
361 ctgcaccgct catgctcgcc cggctttggg gtcaagcaga ttgctacagg ggtttctgat
421 accatctgcg agccctgccc agtcggcttc ttctccaatg tgtcatctgc tttcgaaaaa
481 tgtcaccctt ggacaaggtc cccaggatcg gctgagagcc tggtggtga tccccatcat
541 cttcgggatc ctgtttgcca tcctcttggt gctggtcttt atcaaaaagg tggccaagaa
601 gccaaccaat aa
```

FIGURE 4B

Encoded short isoform of human CD40:

```
  1 mvrlplqcvl wgclltavhp epptacrekq ylinsqccsl cqpgqklvsd ceftetecl
 61 pcgesefldt wnrethchqh kycdpnlglr vqqkgtsetd tictceegwh ctseacescv
121 lhrscspgfg vkqiatgvsd ticepcpvgf fsnvssafek chpwtrspgs aespggdphh
181 lrdpvchplg aglyqkggqe anq
```

FIGURE 4C

Coding sequence for long isoform of human CD40:

```
  1 atggttcgtc tgcctctgca gtgcgtcctc tggggctgct tgctgaccgc tgtccatcca
 61 gaaccaccca ctgcatgcag agaaaaacag tacctaataa acagtcagtg ctgttctttg
121 tgccagccag gacagaaact ggtgagtgac tgcacagagt tcactgaaac ggaatgcctt
181 ccttgcggtg aaagcgaatt cctagacacc tggaacagag agacacactg ccaccagcac
241 aaatactgcg accccaacct agggcttcgg gtccagcaga agggcacctc agaaacagac
301 accatctgca cctgtgaaga aggctggcac tgtacgagtg aggcctgtga gagctgtgtc
361 ctgcaccgct catgctcgcc cggctttggg gtcaagcaga ttgctacagg ggtttctgat
421 accatctgcg agccctgccc agtcggcttc ttctccaatg tgtcatctgc tttcgaaaaa
481 tgtcacccctt ggacaagctg tgagaccaaa gacctggttg tgcaacaggc aggcacaaac
541 aagactgatg ttgtctgtgg tccccaggat cggctgagag ccctggtggt gatccccatc
601 atcttcggga tcctgtttgc catcctcttg gtgctggtct ttatcaaaaa ggtggccaag
661 aagccaacca taaggcccc ccaccccaag caggaacccc aggagatcaa ttttccccgac
721 gatcttcctg gctccaacac tgctgctcca gtgcaggaga ctttacatgg atgccaaccg
781 gtcacccagg aggatggcaa agagagtcgc atctcagtgc aggagagaca gtga
```

FIGURE 4D

Encoded long isoform of human CD40:

```
  1 mvrlplqcvl wgclltavhp epptacrekq ylinsqccsl cqpgqklvsd ceftetecl
 61 pcgesefldt wnrethchqh kycdpnlglr vqqkgtsetd tictceegwh ctseacescv
121 lhrscspgfg vkqiatgvsd ticepcpvgf fsnvssafek chpwtscetk dlvvqqagtn
181 ktdvvcgpqd rlralvvipi ifgilfaill vlvfikkvak kptnkaphpk qepqeinfpd
241 dlpgsntaap vqetlhgcqp vtqedgkesr isvqerq
```

FIGURE 5